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Lower Educated Workers and Part-time Work. The Netherlands 1973-1991

Rudi Wielers & Peter van der Meer

SOM-theme A Primary processes within firms

Abstract

The thesis of the paper is that the strong growth of the number of part-time jobs in the Netherlands between 1975 and 1991 has negatively affected the labour market participation of men, especially of lower educated men. The thesis consists of a behavioural component, which explains why lower educated men are not attracted and do not get access to part-time jobs, and an institutional component, which explains why the labour market position of lower educated men in the Netherlands has deteriorated relatively rapidly during the period 1975-1991. The thesis is underpinned by an empirical analysis of labour market participation of lower educated male workers in part-time and full-time jobs. Competing theses, such as upgrading of the job structure, displacement by better educated workers and sector shift from manufacturing to services are empirically tested, but prove to be less informative explanations of the deteriorated labour market position of lower educated men than the explanation of the growth of part-time jobs.

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Lower educated workers and part-time work. The Netherlands 1973-1991

1 Introduction

In the international labour market literature, the Netherlands is proclaimed to be the first part-time labour market in the world (Freeman 1998). The title suggests that the growth of the number of part-time workers is one of the main causes of the success of the so-called Polder Model in the 1990s. Worksharing, it is argued, has created large numbers of additional jobs and to have attracted new categories of workers such as women and students to the labour market. The success of the Polder Model is not only the harmonious cooperation between employers, employees and government, but also the better utilisation of the country's human resources.

In this paper we study the effects of the transition from a full-time to a part-time labour market. Our thesis is that the growth of the number of part-time jobs in the Netherlands has not only attracted women and students to the labour market but has also negatively affected the labour market participation of men, especially of lower educated men. Although this is an old thesis, often presented as a possible consequence in the debate about worksharing, empirical evidence that supports this thesis is lacking. On the contrary, it was established for the United States that between 1970 and 1990 the increase of part-time employment mainly lead to an increase of the number of second jobs (Tilly 1991). For this reason, we are not only interested in the general labour market mechanism, but also in the institutional conditions that have stimulated the process.

In the following section we present our thesis, which consists of a behavioural and an institutional component. The behavioural component is that different demand categories such as men, women and students have different preferences concerning the length of their working week. Whereas men prefer full-time jobs, many women and almost all students prefer part-time jobs. The institutional component explains why the effects have been so profound in the Netherlands. To illustrate the full effects, we focus

on the period of transition from a full-time to a part-time labour market, roughly the period 1975-1991.

2 Part-time employment relationships

Our hypothesis reads that as a consequence of the growth of part-time jobs the labour market participation of lower educated male workers has deteriorated. We start by presenting the thesis as a general model in terms of cost and benefits for employers and different categories of employees, and then direct attention to the institutional structure of the Netherlands that has unintentionally contributed to the strengthening of the labour market position of part-time workers at the cost of the lower educated male workers.

From the employer's perspective, part-time jobs reduce labour slack, and thus increase labour productivity. In recent years the necessity to reduce labour costs through part-time jobs has increased especially for organisations in the service sector. Because services cannot be produced on stock and are hard to automate, employers in this sector, confronted with the increasing productivity and wage rates in the manufacturing sectors, need to cut labour costs. Part-time employment relationships offer the opportunities to do so.

We distinguish two different forms of part-time employment (following Hakim 1997). *Half-time jobs* are jobs with a working week between about 13 and 32 hours. Half-time jobs reduce the costs of slack, especially slack for employers that cannot produce on stock. By hiring the optimal amounts of labour, employers reduce labour costs. *Marginal jobs* are part-time jobs with a working week of less than 13 hours, that, because they are so small, have low costs of dismissal of the workers. Marginal jobs reduce labour slack, but also contribute in other ways to the reduction of wage costs. Firstly, there is a reduction in the costs of firing someone. Employees may actually have retrenchment protection, but since the jobs are so small, litigation is hardly worth the

effort. It is easier for the employee to find another marginal job than to engage in the enforcement procedure. Furthermore, since the jobs are so small that no worker is fully dependent on it for his living, in different countries at different times in history, employers have been exempted from minimum wage legislation and the payment of social security premiums. Employers in the Netherlands were exempted from this regulation until 1992.

From the perspective of employers, marginal labour is clearly the least expensive form of employment. The drawback of this kind of employment is, however, that workers are very volatile, since, as a consequence of the actual absence of retrenchment protection, their employment is insecure. For this reason, workers in marginal jobs easily quit their jobs. Thus, neither the employer nor the employee will invest in the relationship. As a consequence, tasks in marginal jobs are restricted to those with low training costs.

Part-time jobs are not attractive for lower educated male workers, especially when they are the breadwinners in the family. Half-time jobs are not attractive, since, given the low wage rate for lower educated workers, a half-time job hardly brings in an income large enough to sustain a family. Marginal jobs are even less attractive because, in addition to the proportionally lower income, they do not provide security nor continuity. Thus breadwinner-workers will have a strong preference for full-time jobs above half-time, and certainly above marginal jobs.

On the other hand, half-time and marginal jobs appear to offer good opportunities for 'secondary earners' (Hakim 1997, 1998a, 1998b), that is people that have obligations other than bringing in a good income. Half-time jobs are especially attractive for married women with children, offering them the opportunity to combine family responsibilities with steady work. Since the money earned is often the second income in the household, the low income does not deter them from half-time work. The second income adds to the household income, and offers the married woman a certain independence. Over the last decades the labour market participation of married women in

the Netherlands has increased considerably, mostly through part-time jobs (De Graaf & Vermeulen 1997; Visser 1999; Baaijens 1999).

Marginal jobs mainly attract workers who want to supplement their income, and who are not interested in an employment relationship of indefinite duration. Our focus here is mainly on students who want to add to their study grants. Because students have a short time horizon, they are not very interested in job security. Since, in addition, students accept relatively low wages, have relatively low training costs, and are willing to work at irregular times and time intervals, they are attractive workers for employers that have a volatile demand for labour and at the same time want to cut labour costs. Such employers can be found in the restaurant and retail sectors. The labour market participation of students has increased enormously during the last decades, and their work effort has increasingly been concentrated in lower level jobs (Van der Meer & Wielers 2001; Steijn & Hofman 1999; Dekker & Dorenbos 1997; Muffels, Dekker & Stancinelli 1999; Vossensteyn, 1999).

Given these behavioural assumptions of employers and employees, institutional developments have stimulated the growth of part-time employment at the cost of full-time employment in the Netherlands, thus unintentionally contributing to the decrease in labour market participation of lower educated male workers.

Firstly, the growth of the service sector and the decline of the manufacturing sector meant that during the 1980s the manufacturing sector was hit hard by the economic crisis and rapidly lost jobs. New jobs for lower educated workers were created in the service sectors, many of them part-time jobs. According to general job classification standards, these jobs were perfectly suited for lower educated male workers, although these workers did not get access to them.

Secondly, labour market participation rates of women and students were traditionally low, due to the political and cultural development of the Netherlands. The special position of the mother in the family was emphasised, and barriers were erected to deter women from entry into the labour market. The number of students increased during

the 1960s, but hardly any of them undertook paid work. Most of the students received money from their relatively wealthy parents (who were partly compensated by the government's child allowance system) or, if their parents had only a modest income, had a relatively generous grant, consisting of a gift in combination with an interest free loan.

Thirdly, the Dutch social security system in the late sixties and early seventies may be characterized as relatively generous. Benefit levels were set to sustain a family, and access was meant to be limited mainly to the 'breadwinner' of the family. Unemployment and disability benefits were geared to the last income earned. To those in need but recently not in paid employment a welfare benefit was granted. During this period the number of singles and one-parent families increased dramatically and the appeal to the social security system continuously increased. Politically, it proved hard to implement a downward adaptation of the benefit levels or to change the social security system.

Finally, the Dutch government had severe financial problems, and tried to solve these partly by lessening the dependence of the Dutch citizens on social security benefits. The goal was to increase labour market participation, not only of male breadwinners, but of the whole potential workforce, thus fundamentally changing the foundation of the social security and the financial system. Changes in the tax system stimulated women to participate on the labour market and students were allowed to earn additional income next to their grants. In addition, the government stimulated the growth of part-time jobs in the state sector.

In this new context the labour market participation of lower educated male workers rapidly deteriorated. Many of the newly created jobs in the service sector were part-time jobs, and therefore not very attractive in terms of income and social security. In addition, they faced strong competition from relatively well-educated women and students, who were stimulated to enter the labour market. Price competition was neither attractive nor possible due to unequal competition with the relatively well-educated 'secondary earners', that is workers with other sources of income. The alternative was to

hide in the social insurance system, which granted benefits adapted to the last income earned, and which were thus considerably better than the social security minimum.

In this section we have presented our thesis. To present a credible test of the thesis we elaborate on issues presented as critical in the literature.

3 Critical issues

In the relevant literature a number of alternative interpretations and explanations to different aspects of our thesis can be found; we elaborate on them subsequently.

Description of labour market position of lower educated workers. Several authors (Groot & Maassen van den Brink 1998; Groot 1996; Van Ours & Ridder 1995) have argued that there is hardly any evidence of a bad and deteriorating labour market position of lower educated workers in the Netherlands. The argument is that unemployment among lower educated workers has not increased, implying that the deterioration of the labour market position of lower educated is an exaggeration of the facts. We will examine the evidence and will argue that for a clear view it is necessary to take ‘discouraged worker effects’ into account. This implies that the view is broadened from the officially unemployed to the total category of non-employed people.

Upgrading of the job structure. If it is accepted that the labour market position of lower educated workers is bad and has deteriorated, rival explanations deserve attention. A first alternative explanation is that employment opportunities for lower educated workers have been decreasing as a consequence of the *upgrading of the job structure* (Blauner 1964). The argument is that the number of jobs for lower educated workers is decreasing as a consequence of product differentiation strategies and technological development. Mass production has lost appeal, and the demand for more differentiated products of high quality has increased. In addition, new technologies affect the labour market position of lower educated workers negatively in two ways. Firstly, the

application of new technologies requires well-educated workers, such as systems analysts and programmers; and secondly, as a consequence of automation, jobs at lower levels disappear. As a consequence, the number of job slots for lower educated workers has decreased. To establish the validity of this argument, we will examine the development of the job structure, and its effects on the labour market position of lower educated workers.

Displacement by better educated workers. According to the *displacement thesis*, the decline of the labour market position of lower educated workers is caused by the increase of the number of better educated workers. Displacement is the consequence of a process of competition on the supply side of the labour market, which is thus independent from labour market demand. Individuals improve their own educational credentials to enhance their competitiveness in the labour market. Since each individual follows the same strategy, the result is a rapid increase in the educational credentials of the working population, with, nevertheless, every individual occupying about the same position in the labour queue (Hirsch 1977; Thurow 1975). Employers choose, *ceteris paribus*, the better educated worker because of the presumed higher productivity or lower training costs, even if the job is better suited for lower educated workers. The result is an allocation in which many workers have a job below their qualification level ('overschooling'), and the lower educated, due to the lack of jobs, have been pushed out of the labour market into unemployment and, specifically for the Netherlands, into disablement. We will investigate the validity of the displacement thesis, by analysing the effects of the changes in the composition of the labour force on the labour market position of lower educated workers.

Sector shift. This latter thesis is based on the argument that it is not the growth of part-time jobs per se, but the sector shift in employment from manufacturing to the services that is the main cause of the deterioration of the labour market position of the lower educated workers. The sector shift hypothesis elaborates on the work of Bell (1973) and Touraine (1969), who have argued that the post-industrial society demands

labour market qualifications that are not supplied by lower educated workers. Bell and Touraine emphasized the increased importance of abstract knowledge, but sector shift might also imply other qualifications, such as social skills necessary to serve customers and the willingness to work at irregular times. Women and students are arguably better suppliers of these qualifications than lower educated male workers, given their often better education, better social skills or willingness to work at irregular times. In this perspective, the deterioration of the labour market position of lower educated male workers is the consequence of the sector shift in employment, which made their qualifications obsolete. A critical test of the sector shift thesis versus our flexibility thesis is that the direct effect of the sector shift in employment on the labour market position of the different supply categories is at least as large as the effect of the growth of part-time jobs.

In summary, to prove the validity of the flexibility thesis we need to show that it is plausible that the labour market position of lower educated men has suffered from the growth of part-time jobs in the labour market, whereas that of women and students has benefited. In addition, evidence is needed that the labour market position of lower educated workers indeed has deteriorated, and that this is due neither to the upgrading of the job structure nor to displacement by better educated workers. And finally it needs to be shown that the growth of the number of part-time jobs and not sector shift is the main cause of the deterioration of the labour market position of lower educated workers.

4 Data, operationalisation and methods

The empirical evidence to be presented in the following sections is mainly drawn from the analysis of labour market data for 1973 and 1991. During this period, the trend towards greater flexibility in the Dutch labour market unfolded (Visser & Hemerijck 1997).

Our analysis is based upon two large-scale labour force surveys, both established by Statistics Netherlands (CBS), the government agency that gathers and analyses representative survey data for the Netherlands. In both data sets, the job level, educational level and economic sector, are classified according to almost identical systems. The data sets used are the Labour Force Surveys of 1973 and 1991 (usually abbreviated to AKT73 and EBB91). Problems of comparability, mainly due to changes in the classification systems used, were solved by collapsing smaller categories into broader ones.

Following our analytical framework, we distinguish three different types for length of working week. A job is full-time if the working week is longer than 32 hours. It is half-time, if the working week is 32 hours or less but not smaller than 13 hours. Marginal jobs form the residual category of very small jobs. The 13-hour criterion was chosen because of its correspondence to the presence or absence of a legal framework embedding the relationship. The further category of 'no job' covers all other persons. The distinction between 'full-time', 'half-time', 'marginal' and 'no job' is referred to as the 'labour market position classification'.

To distinguish job levels, we have used the so-called Huijgen-scale, the standard job level classification system in the Netherlands (Huijgen, Riesewijk & Conen 1983). The Huijgen-scale distinguishes seven job levels according to complexity of tasks, time needed to train the worker and educational level required, with 1 as the lowest and 7 as the highest category. In our analysis, the term lower jobs or lower level jobs refers to the jobs on levels 1 and 2 of the Huijgen system.

As for sectors, we only distinguish between manufacturing and agriculture on the one hand, and services, on the other. Agriculture, manufacturing industries, utilities and construction industries are collapsed into 'manufacturing and agriculture'; retail and restaurants, transport, business services, personal services, government agencies and government services into services.

On the supply side of the labour market, we distinguish between five categories: students, lower educated men, higher educated men, lower educated women and higher educated women. This categorisation corresponds to our theoretical framework. We will refer to this categorisation as ‘the supply categories’.

To analyse the development of the labour market positions of these categories, we use labour market participation rates. Participation rates are computed as the number of that category in the active labour force divided by the number of the same category in the potential labour force. The active labour force is the aggregate of all the people who are in paid employment for at least one hour per week, thus excluding self-employed, unemployed and other non-employed people. The potential labour force are all people in the population between 15 and 65. Participation rates enable us to step beyond the framework of employed and unemployed as defined by government institutions.

To get a clear picture of the combined effects of gender and education, we use the Statistics Netherlands categorisation of educational levels, the Standard Educational Categorisation (in Dutch abbreviated to SOI). We often use the term ‘lower educated’ for people that at best have finished lower vocational training (LBO) or lower secondary school (MAVO). The better educated are the people who have finished upper secondary school (HAVO), upper vocational training (MBO) or higher. We excluded all students from the educational level categories, and classified them as a distinct category.

The empirical analysis builds upon two multinomial logit models for 1973 and 1991 in which the labour market position categories are regressed on the supply categories. Students are the reference category for the other categories. Terms for age and age square are added as control variables. Because the estimated parameters of the multinomial logit model have no direct straightforward interpretation we report marginal effects. These marginal effects are computed as the first derivatives of the estimated models. They control for mean probabilities of the categories of the dependent variable, and can be interpreted as the percentage point change in probability to fall into one of the dependent categories as a consequence of a small change in the individual characteristics

(Green, 1998). These statistical analyses are based on random subsamples for both years of about 55,000 cases.

To estimate the relative effects of sectoral change and the growth of part-time jobs on the labour market participation, we estimated a series of loglinear models. We report them in terms of decreases in Scaled Deviance, in reference to the decrease in the Degrees of freedom.

To examine the thesis of upgrading of the job structure and of displacement, we weighted the sample into total absolute numbers of jobs, workers and people. We did this on the basis of sample attractions of 2.6% and 0.75% respectively. To increase readability, the real numbers of jobs and persons in these tables are divided by 1000.

To describe the labour market position of lower educated workers, we draw on published statistics by Statistics Netherlands, such as the available Labour Surveys between 1973 and 1991 and the Labour Accounts. Since Statistics Netherlands follows the same categorisation in all its published statistics, these data could be related to the results of our computations.

5 Part-time jobs and labour market participation

In this section we present the main evidence for our thesis that the weakening of the labour market position of lower educated workers and the strengthening of the labour market position of women and students is due to increased flexibility in the labour market.

Table 1 about here

Table 1 presents the results for the multinomial logit model with labour market position characteristics as dependent variable and supply characteristics and age as independent

variables. Marginal effects show that in both years men were over-represented in full-time jobs, women in half-time jobs and students in marginal jobs. The mean probabilities show that the shares of the 'no job' and 'full-time job' categories decreased, whereas those of the 'half-time' and 'marginal' job categories increased.

To facilitate interpretation, we computed the distribution patterns according to the multinomial logit models. The results are presented in Table 2¹.

Table 2 about here

The 'no job' category shows a clearly increased non-participation of men. This increased non-participation is not caused by worsened labour market conditions, since the overall labour market participation has increased. The increased number of part-time jobs is a better explanation for the increased non-participation. Participation of men decreased in full-time jobs and increased in half-time and marginal jobs. The increase in part-time jobs did not compensate for the loss of full-time jobs. The pattern is about the same for lower and better educated men, but effects are stronger for lower educated men. This is evidence that the labour market participation of men, especially of lower educated men, has deteriorated as a consequence of the growth of part-time jobs.

On the other hand, we see an increase in the labour market participation of women and students. The table shows the relatively strong position of women in half-time jobs especially, and the considerable strengthening of this position between 1973 and 1991. The share of women working in full-time positions decreased, despite their increased labour market participation. Many women have gained access to the labour market via half-time jobs.

1. The computed distribution patterns deviate from the observed distribution patterns as a consequence of the correction for the age variable.

During the period under observation, many students have entered the labour market. Their non-participation ratio decreased from 93.7 per cent to 73.5 per cent. Students were and are clearly over-represented in the marginal jobs, with only a minority working in half-time jobs. Whereas women gained access to the labour market via half-time jobs, students gained access via marginal jobs.

Table 3. presents the available information about the relative wages of lower educated workers. Categories are dominated by men, but also include women and students.

Table 3 about here

The table shows a decreasing wage differential between the higher and the lower educated workers. A partial explanation for this is the increased educational attainment of the Dutch population, increasing the supply of young well-educated workers, especially women, whereas the average age of older lower educated workers has relatively increased. Research related to the private return on education confirms this trend. Hartog et.al, (1993) report a decreasing return of education from 12 per cent in 1960 to 7 per cent in 1985. Between 1985 and 1996 the rate of return was stable at about this 7 per cent level (Hartog et.al. 1999). Evidence thus points towards a relative wage increase for lower educated workers during the period under observation. This implies that wages of lower educated workers have not adapted downward despite their decreasing labour market participation.

The evidence presented in this section suggests that the growth of the number of part-time jobs has weakened the labour market position of men, especially that of lower educated men, and strengthened the labour market position of women and students. We have documented the statistical relationship between the growth of the number of part-time jobs and the changed labour market positions of different supply categories and have shown that wages did not adapt downward. However, to strengthen our thesis of a

causal relationship, further evidence is needed. In the following sections we elaborate on alternative explanations.

6 Measuring and explaining deterioration

In this section we elaborate on counter-arguments accounting for the deteriorated labour market position of lower educated men. We first examine the argument that the labour market position of lower educated men has not deteriorated, and then examine alternative explanations, such as upgrading of the job structure, displacement of lower educated by better educated workers and the sector shift in employment.

A number of authors (Groot & Maassen van den Brink 1998; Groot 1996; Van Ours & Ridder 1995) have argued that evidence is missing which shows that the labour market position of lower educated workers has deteriorated. In particular, unemployment figures do not show a deteriorating labour market position of lower educated workers in the Netherlands. For that reason, it is necessary to focus not only on participation, but also on unemployment figures.

Table 4 about here

Table 4 shows that unemployment among lower educated workers did not increase substantially faster than that of the total population between 1981 and 1991, and that unemployment among lower educated workers decreased considerably between 1985 and 1991. Nevertheless, unemployment among lower educated workers during the whole period was considerably higher than the overall unemployment rate, and, in addition, lower educated workers were and are strongly over-represented among the long-term unemployed (see for instance: De Beer 1996: 325). This suggests that lower educated workers were seriously at risk of becoming ‘discouraged workers’, who withdraw from the workforce as a result of a lack of employment opportunities.

The plausibility of such discouraged-worker effects, especially among male lower educated workers, is documented in table 5. The table presents gross participation rates, that is the share of employed and unemployed in the potential labour force. It shows a considerable decrease in the gross participation rate of lower educated men during the 1980s, thus their withdrawal from the labour force. The table documents how this process of withdrawal of men developed against a background of an increasing number of lower educated women in the labour force.

Table 5 about here

Further evidence for the existence of the discouraged-worker effect comes from additional information about entitlements as granted by the Dutch social security system. Leaving the labour market often carries entitlements to early retirement pensions or disability benefits. Subsequently, the over-representation of lower educated workers eligible for early retirement implies a drop in labour market participation rather than an increase in registered unemployment. The very low labour market participation rate (21 percent) of older lower educated workers in 1991 confirms this

Leaving the labour market may also carry to disability benefits. The number of disabled workers in the Netherlands is very high in comparison to other countries (Aarts et al. 1996). There is a broad consensus in the Netherlands that this high figure is neither the result of the poor health of the workers, nor of unhealthy employment conditions, but rather reflects the relatively attractive disability benefit system in combination with generously granted access. Many people who became redundant in the work organisations and who would find it hard to get a new job, successfully claimed disability benefits. The few statistics available show a clear over-representation of lower educated people among the beneficiaries of disability benefits. Whereas in 1990 the lower educated workers made up to 38 percent in the active labour force, their proportion in the group receiving disability benefits was 65 percent (CBS 1992).

It is to be noted that this withdrawal from the labour force took place against the background of a relative wage increase (see table 3). Apparently, despite this relative wage increase, there were not sufficient incentives to stay in the labour market. In the Netherlands it is an issue of public debate whether labour market conditions were so bad that the workers were forced out of the labour market, or whether social security benefits were so generous that the workers were attracted to them. We want to emphasise however that for a proper explanation of the labour market position of lower educated workers both the condition of a bad labour market position and the condition of relatively generous social security benefits are necessary. With one of these elements lacking it is impossible to explain why so many workers withdrew from a labour market in which their wages were relatively increasing.

In summary, the continuously high unemployment of lower educated workers and their over-representation among the early retired and disabled people are evidence of discouraged-worker effects. The 1980s saw a significant fall in labour market participation, especially of the lower educated men. Lower educated workers were not only at greater risk of unemployment, but also have withdrawn more often from the labour market.

For this deteriorated labour market position of lower educated workers, three alternative explanations are tested. The first is that of *upgrading of the job structure* as a consequence of the introduction of new technologies. There is extensive evidence that in the Netherlands during the 1970s and 1980s job structures have upgraded. There was a strong growth of the number of higher level jobs, and therefore a relative decline in the number of lower level jobs (Huijgen 1989; Batenburg & De Witte 2001). Case studies in the Netherlands have shown that new technologies, introduced to increase the competitiveness of companies, have raised the demand for better qualified workers (Ten Have 1988; Alders & Christis 1988; Van Veen & Wielers 1999). In addition, survey research from the Netherlands and from other countries has confirmed the positive relationship between the introduction of new technologies and an increased demand for

better qualified workers (Batenburg 1991; Nelson & Phelps 1966; Collins 1972; Bartel & Lichtenberg 1987). Research into the development of the job level structure shows an increase in the average job level, especially in industrial production, where the thesis of the upgrading job structure predicts the effect of technological development to be strongest (Huijgen 1989; Batenburg & De Witte 2001). However, upgrading of job structures is only a veritable main cause of the deteriorated labour market position of lower educated workers, if, firstly, the number of lower level jobs indeed has decreased; and, secondly, if and only if the number of lower level jobs has decreased faster than the labour market position of the lower educated workers.

De Beer (1996) has presented evidence that the number of jobs for lower educated workers in the Netherlands has decreased in a relative but not in an absolute sense. This is confirmed by our data. The share of the lower level jobs in the total number of jobs decreased from 33.2 percent in 1973 to 26 percent in 1991. However, the absolute number of lower level jobs increased from 1.2 million to almost 1.5 million, an increase of 18 percent. The difference between absolute and relative figures is due to the growth of the total number of jobs from 3.7 million to 5.6 million. Thus, it is clearly not the absolute number of lower level jobs that is the main problem.

In addition, there is ample evidence that the share of lower educated workers in the population has decreased (for instance: Huijgen 1989; Batenburg & De Witte 2001). In our sample the share of lower educated persons in the potential labour force decreased from 68.8% in 1973 to 39.1% in 1991. This corresponds to a decrease in the total population of 5.6 million to 4.0 million². The strong decrease is caused by the increased educational attainment of the Dutch population (Huijgen 1989; Batenburg & De Witte 2001). Accordingly, the upgrading of the job structure cannot be the main cause of the deterioration of the labour market position of lower educated workers. The absolute

2. This number is without the students and therefore lower than presented in Table 4.

number of lower level jobs increased, whereas the share of lower educated people in the population decreased drastically. These results refute the argument that upgrading of the job structure is the main cause of the deteriorated labour market position of lower educated workers.

The second alternative explanation is that the deteriorated labour market position of the lower educated workers is their *displacement by better educated workers*. As a consequence of increased participation in education by the younger generations, the supply of better educated workers has increased and these new generations of better educated workers have driven out the older generations of lower educated workers from jobs that are perfectly suited for them. This thesis has found a lot of support in the Dutch labour market literature (Huijgen 1989; Asselberghs et al. 1997; Wolbers 1998, 2000; De Beer 1996; Salverda 1990, 1997; Borghans & De Grip 2000; Oosterbeek 2000). There are also indications for the validity of the displacement thesis in our data. For instance, in our discussion of the upgrading thesis, we have argued that the share of lower educated workers in the active labour force has decreased much faster than the share of lower level jobs. This indicates displacement, since many of the lower level jobs must have been taken by better educated workers.

The problem with the displacement thesis is that it is not clear why employers are willing to pay a better wage for a higher educated worker if the job is perfectly suitable for a lower educated worker. Research shows the persistent effect that workers with the same education on a certain job level earn a better wage than workers on a lower job level (for instance Hartog 2000). The plausible explanation for this consistent effect is that workers with a better education are more productive on the same job level, implying that displacement happened for good reasons.

Our data show additional anomalies. Table 2 shows that non-participation of better educated men increased and their share in full-time jobs decreased, and that lower educated women have not been displaced by better educated workers. These effects are hard to reconcile with the displacement thesis. In addition, the labour market position of

lower educated workers was not only negatively affected by better educated workers, but also by students. The number of jobs taken by students was 50,000 in 1973, and 331,000 in 1991. Computed into full-time equivalents the number of jobs is about 88,000 in 1991, less impressive, but still substantial in the context of the Dutch labour market (Van der Meer & Wielers 2001). Accordingly, displacement of lower educated workers is not restricted to displacement by better educated workers.

Apparently, it was not all lower educated workers that saw their labour market deteriorate and all better educated workers who saw their position improve. The anomalies cast doubt on the validity of the displacement thesis. The displacement thesis should not be refuted, since lower level jobs indeed have been taken by better educated workers. But without taking the effects of the increased number of part-time jobs into account, it is seriously incomplete.

The last alternative hypothesis is that of *sector shift* in employment. The argument is that it is not the growth of part-time jobs per se, but the sector shift in employment from manufacturing to services that has been the main cause of the deterioration of the labour market position of lower educated workers.

The shift in employment as put forward in the sector shift thesis is well documented (Esping-Andersen 1993; Kloosterman & Elfring 1991; Steijn 2001), but its relationship with the growth of part-time work is far from clear. Two assumptions seem to be critical. The first is that the services are showing a large increase in the number and share of part-time jobs. The second is that this sector shift in employment and not the shift from full-time to part-time work is the main determinant of the change in the labour market position of the lower educated male workers. If these assumptions do not hold, our thesis that the labour market position of the lower educated men has deteriorated due to the shift from full-time to part-time employment is more accurate.

Growth of the number of part-time jobs corresponds to a large extent with the growth of employment in the services. The share of the jobs in the services increased from 55,5 percent in 1973 to 70,5 percent in 1991, all at the expense of share of jobs in

manufacturing. The strong growth of part-time jobs in the services is illustrated in table 6.

Table 6 about here

The table shows that in 1991 about 40 percent of the jobs in the services were part-time, in comparison to about 16 percent in manufacturing. In addition, employment has shifted from manufacturing to services. The combination of a strong growth of the number of part-time jobs and an enormous expansion of that sector seem to support the thesis that the nature of the work has changed.

To test whether the sector effect dominates the part-time effect, we have estimated loglinear models, with both the sector and part-time effects specified. The dependent variable was the total number of workers in a cross-table category, based on the dimensions supply category, job flexibility category, sector and year.

The base model against which we tested the changing effects of jobs and sectors is the model with all interaction effects of supply categories, jobs and sectors and the independent effect of year. In this way we control for the marginal distribution over rows and columns. The scaled deviance of the base model is 18115 with 59 degrees of freedom. We took this model as the base for estimating the effects of the shifts in jobs and sectors. Results are specified in table 7. Because of the strong effect of the change in supply categories, we controlled for that effect.

Table 7 about here

In both models, the effect of the changes in the job structure dominate the effect of the sectoral change. This is even more clear after controlling for the changes in supply. To assess the sensitivity we repeated the analyses for a trivariate sector variable, splitting up

the broad category of services in commercial and state services, with slightly different effects leading to the same conclusion.

We therefore conclude that despite the sector shift the labour market position of the supply categories was more affected by the shift from full-time to part-time jobs. This refutes the argument that the labour market participation of lower educated men was mainly affected by the shift of employment from manufacturing to services, and far less by the shift towards part-time work.

7 Conclusions and Implications

The thesis developed and tested in this article was that the increased part-time employment in the labour market is an important cause of the deterioration of the labour market position of lower educated male workers, and has stimulated the labour market participation of women and students. To prove the validity of our thesis we have presented evidence that the labour market position of lower educated men in the Netherlands has suffered from the growth of part-time work in the labour market, whereas that of women and students has benefited. In addition, we have shown that the flexibilisation of the labour market is a better explanation of the deteriorated labour market position of lower educated male workers, and the improved labour market position of women and students, than several partly competing theses, such as the upgrading of the job structure and the displacement of lower by better educated workers and the shift in employment from manufacturing to services. These results have implications for a number of current debates in sociology.

Labour market position of lower educated workers. In this article, we have identified and established the growth of part-time jobs in the labour market as a major cause for the deterioration of the labour market of lower educated workers. This flexibilisation has facilitated the entrance of women and students into the labour market.

In the same process, the labour market position of male workers has deteriorated, especially that of lower educated men. Explanations current in the literature, such as upgrading of the job structure and displacement by better educated workers, proved to be less valid than the flexibility thesis. Upgrading of the job structure had to be refuted as a cause of deterioration, whereas the displacement thesis could not explain the relatively improved labour market position of lower educated women and the relatively deteriorated labour market position of better educated men. According to the foregoing analysis, the problem of the deterioration of the labour market position of lower educated workers in the Netherlands is mainly the problem of lower educated men, who are not able to find suitable full-time jobs.

Evaluation of part-time work. In the Anglo-Saxon literature, the growth of part-time work is still mainly evaluated as a development undesirable in itself. Part-time jobs are insecure, pay low wages, offer no promotion opportunities, and are often taken involuntarily. They are secondary jobs, and their existence may even threaten the labour standards of full-time workers (for instance Rubery 1998). Hakim (1997, 1998b) has developed an alternative perspective, arguing that despite worse employment conditions, part-time work is typically taken up voluntarily and offers higher levels of job satisfaction than full-time work. Her argument substantially is that part-time work attracts other categories of workers, married women and students, that give priority to some other non-market activity, such as family or study. The part-time job is mainly a means for adding to other sources of income. Our research, partly inspired by Hakim's work, supports this new perspective on part-time work. Part-time work in the Netherlands is taken up voluntarily by categories of workers that would not have acquired access to the labour market, if part-time jobs were not present. Surveys from the 1990s show consistently that part-time workers are relatively satisfied with the length of their working week, whereas full-time workers would like to work fewer hours (Baaijens 2000; Smulders & De Feyter 2001). The main labour market problem in the Netherlands

is not the involuntary employment of part-time workers, but the involuntary *non*-employment of breadwinner-workers, who want full-time jobs.

Inequality between families. A probable implication of our results is that the trend towards labour market flexibility increases inequality between families. A plausible scenario of the decreased labour market participation of men and the increased labour market participation of women is that families increasingly differentiate between those with both partners, and those with none of the partners doing paid work. This implies greater inequality in income and status between families. Evidence of such unemployment coming 'in couples' was established for the Netherlands in the 1980s (Ultee, Dessens & Jansen 1988). Further differentiation may result in spatial and mental segregation between families that either do or do not participate in the labour market.

Time squeeze. Our results contribute to the explanation of the phenomenon of 'time squeeze' that cropped up in the Netherlands in the 1980s and 1990s (Peters 2000). Whereas the actual number of hours worked did not increase much (Delsen & De Jong 1997), the grown and growing number of part-time workers increased problems of time pressure in families and educational institutions. Employers, demanding their part-time workers at specific hours, intervened in the time schedule of women and students. The time squeeze cropped up not only in two-earner families, but also in institutions for higher education, where many students gave priority to job instead of course attendance.

Comparison with other countries. In our theoretical elaboration we have emphasized the specific institutional conditions that have enhanced the decrease in labour market participation of lower educated workers. The labour market position of lower educated workers is bad in a number of western countries (OECD Employment Outlook 2000), but it is not clear to what extent this was caused by the growth of part-time employment. It is known, however, that the growth of part-time work in the United States during about the same period (1969-1989) has mainly lead to a growth of the number of multiple jobholders (Tilly 1991). Because developments in the Netherlands

and the United States are so clearly different, results of analyses for other countries will deepen our understanding of institutional structures and labour market outcomes.

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Table 1. Marginal effects of multinomial logit models of allocation to labour market position categories, 1991 and 1973

	No job	Marginal job	Half-time job	Full-time job
1991				
Constant	1.15	-0.002	-0.41	-0.74
Student			Reference group	
Lower educated men	-1.06	-0.31	-0.01	1.38
Higher educated men	-1.28	-0.30	0.07	1.50
Lower educated women	-0.59	-0.18	0.13	0.65
Higher educated women	-0.84	-0.20	0.17	0.87
Age	-0.03	0.006	0.014	0.009
Age squared	0.0006	-0.00006	-0.0002	-0.0003
Mean Probability	0.400	0.087	0.162	0.351
Model fit	Chisq=37712.6	Dgf=18	N=56732	
1973				
Constant	0.68	0.06	-0.16	-0.45
Student			Reference group	
Lower edcuated men	-2.14	-0.10	-0.07	2.31
Higher educated men	-2.41	-0.08	0.04	2.45
Lower educated women	-1.26	-0.05	0.02	1.30
Higher educated women	-1.45	-0.05	0.06	1.44
Age	0.04	0.004	0.003	-0.04
Age squared	-0.0003	-0.00005	-0.00004	0.0003
Mean Probability	0.457	0.017	0.068	0.458
Model fit	Chisq=40361.2	Dgf=18	N=52927	

Source: Akt73, EBB91, our calculations

Table 2. Computed Distribution of Supply Categories based on Multinomial Logit Models for 1991 and 1973 (row percentages)

	No job		Marginal		Half-time		Full-time	
	1973	1991	1973	1991	1973	1991	1973	1991
Lower educated Men	5.4	15.7	0.1	2.1	1.2	6.2	93.3	76.0
Higher educated. Men	2.3	7.0	0.2	1.8	4.6	7.8	93.0	83.4
Lower educated Women	70.3	60.7	2.7	10.5	7.9	17.3	19.2	11.6
Higher educated Women	51.3	37.8	4.4	10.5	15.6	27.0	28.7	24.7
Students	93.7	73.5	5.7	23.8	0.5	2.2	0.1	0.5

Sources: AKT73; EBB91; own calculations

Table 3. Average hourly wages of employees according to educational level (SOI levels)

Year	1	2	3	4-5	Ratio 4-5/1
1973	7.74	8.09	10.92	15.81	2.04
1978	13.29	13.82	18.20	26.99	2.03
1983	17.15	17.74	21.37	29.74	1.73
1988	19.28	19.67	22.29	31.07	1.61
1991	21.25	22.30	23.71	33.70	1.59

Source: Labour Accounts, CBS, 1996

Table 4. Unemployment rates for lower educated workers and the total work force (%)

	1973	1979	1981	1985	1991
Lower Educated	2.4	4.6	8.9	15.0	10.1
Total	1.7	3.5	6.3	10.0	7.1

Source: Labour Accounts, CBS, 1996

Table 5. Potential labour force (thousands) and gross participation (%) with students included

	1973	1979	1981	1985	1991
Potential female Lower Educated labour force	3389	2783	2532	2513	2603
Gross participation rate of lower educated women	21.5	31.1	34.3	36.5	41.6
Potential male Lower Educated labour force	3151	2160	2052	1947	2245
Gross participation rate of lower educated men	83.8	87.7	86.2	84.3	73.6

Source: AKT73, AKT79, AKT81, AKT85, EBB91, our calculations

Table 6. Distribution of part-time jobs over sectors, 1991 and 1973 (%)

Sector	1973		1991	
	Half-time	Marginal	Half-time	Marginal
Manufacturing	3.9	1.1	10.3	6.1
Services	13.9	5.8	25.3	14.5
Total	9.6	3.7	21.3	12.0

Sources: AKT73, EBB91, own calculations

Table 7. Loglinear effects of changes in jobs, sector, and supply categories on labour market allocation in the Netherlands, 1975-1991.

Changes in reference to base model		
Variables	Scaled Deviance	Df
+year*job	-4017	-2
+year*sector	-1377	-1
+year*supply	-9818	-4
Changes in reference to base model, controlling for changes in supply		
Variables	Scaled Deviance	Df
+year*job	-2108	-2
+year*sector	-137	-1